

Radiological Health Program

Radioactive Materials

Guidance for requesting US DOT Exemption E-11406 upon solid waste that is
radioactively contaminated.
Re-issued December 1, 2004

Landfill operators and solid waste transfer facilities may have equipment to detect radioactive material or devices that may have unknowingly been included in shipments arriving at the facility. The introduction of such radioactive devices may adversely affect ground water quality, and violate the facility's licensing conditions, which prohibit the introduction of hazardous materials into a landfill. In some cases the facility will refuse these shipments. Rejected shipments that are suspected of containing detectable quantities of radioactive materials are subject to the US Department of Transportation (DOT) Regulations, which require shipping papers describing the radioactive materials, placards on the vehicle, and training for the drivers. The carrier or shipper may request an exemption from these requirements from the DOT; however, DOT approval may take several days during which time the carrier or shipper's trailer or rail car may not be moved creating an economic loss. DOT has determined that public health and safety, including that of the carrier is not adversely impacted as long as the conditions of the exemption are followed.

The Virginia Department of Health's (VDH) Radiological Health Program participates in a program that the Conference of Radiation Program Directors has initiated with DOT to delegate to the States the authority to issue an exemption for specific incidents within their respective jurisdictions. The specific DOT exemption is E-11406. A copy of the exemption is attached to this guidance document and is also available at the following US DOT web site: http://hazmat.dot.gov/exemptions_index.htm.

Facilities that have detected radiation levels above background should contact Radiological Health Program at (804) 864-8150 or instate 1-800-468-0138, and FAX (804) 864-8165 to provide information on the exemption form, or if they choose, determine whether the material is of short-half life and allow the material to decay in storage and then disposed in the landfill. If the facility has tele-fax capability, an approval form may be sent the same workday or the next business day if the request is received after 3:00 p.m.

The VDH will follow up with the State Radiation Control Program in the state to which the shipment was returned to determine the nature of the radiation levels. When shipments are returned to Virginia, VDH may either inspect the shipment or require the facility to contract with a qualified consultant to survey the shipment. VDH will provide advice on disposal options, and depending on the nature of the radiation source, provide information regarding the licensure of the material. In many cases the material may be diffuse natural occurring, or other materials exempt from regulatory control, such as smoke detectors, and human excreta from out patient procedures. These materials are acceptable for disposal in a landfill. VDH will assume the material is under its regulatory authority until it has been identified as those materials regulated by the US Nuclear Regulatory Commission.

Attachment: E-11406 Sixth Revision Expiration March 31, 2006
Regulatory Authority 12VAC5-480-320



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

SEP 22 2004

DOT-E 10656
(NINTH REVISION)

EXPIRATION DATE: February 28, 2005

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Shippers and carriers of scrap metal or other related metal recycle materials with low levels of external radiation who are approved by state radioactive material control officials registered with the Office of the Executive Director of the Conference of Radiation Control Program Directors (CRCPD), Frankfort, Kentucky.

2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the one-way transportation in commerce by highway or rail of shipments of scrap metal and related metal recycle materials (hereafter referred to as "scrap metal") which have been found, during or at the conclusion of transportation or during inspection of the shipment following its receipt, to contain unexpected and unidentified radioactive material or contamination. The one-way transportation authorized by this exemption is exempted from the classification, packaging, and hazard communication requirements normally required for transportation of radioactive material.

The purpose of the transportation authorized by this exemption is to allow the scrap metal to be moved to a location deemed by the authorizing state official to be more appropriate for proper characterization and/or disposition of the discovered radioactivity. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

- b. The safety analysis performed in the development of this exemption only considered the hazards and risks associated with transportation in commerce.

SEP 22 2004

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Part 172, Subparts C, D, E, F, G, and H as they pertain to required shipping papers, package marking and labeling, vehicle placarding, emergency response information and training; 49 CFR Part 173, Subpart B, § 173.22(a)(1) as it pertains to classification of hazardous materials; 49 CFR Part 173, Subpart I as it pertains to packaging and transport of radioactive material; Part 174, Subpart K as it pertains to detailed requirements for rail transport of radioactive materials; and Section 177.842 as it pertains to highway transport of radioactive materials.
5. BASIS: This exemption is based on CRCPD's application dated February 27, 2003, submitted in accordance with § 107.109 and additional information dated July 12, 2004.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Radioactive material, excepted package-limited quantity of material	7	UN2910	N/A
Radioactive Material, Type A package <i>non-special form, non fissile or fissile-excepted</i>	7	UN2915	N/A
Radioactive Material, Type A package, special form <i>non fissile or fissile-excepted</i>	7	UN3332	N/A
Radioactive Material, Type B(U) package <i>non fissile or fissile-excepted</i>	7	UN2916	N/A
Radioactive Material, low specific activity (LSA-I) <i>non fissile or fissile-excepted</i>	7	UN2912	N/A

SEP 22 2004

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Radioactive Material, low specific activity (LSA-II) <i>non fissile or fissile- excepted</i>	7	UN3321	N/A
Radioactive Material, low specific activity (LSA-III) <i>non fissile or fissile- excepted</i>	7	UN3322	N/A
Radioactive Material, surface contaminated objects (SCO-I or SCO-II) <i>non fissile or fissile-excepted</i>	7	UN2913	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - The shipments are excepted from the packaging and transport requirements for radioactive materials of Part 173, Subpart I and may be transported by motor vehicle or rail provided it is evident that radioactive material will not be released from the conveyance during transit and that the transport conditions in the shipment approval form specified in paragraph 7(d) of this exemption are satisfied.

b. CLASSIFICATION AND TESTING - The shipments are exempted from the classification and description requirement of § 173.22(a)(1) provided that the measured radiation levels at the external surface of the conveyance do not exceed 0.50 mSv/h (50 mrem/h).

c. COMMUNICATIONS - The packages and conveyances transported under this exemption are exempted from the communications requirements of 49 CFR Part 172, Subpart C (shipping papers), D (marking), E (labeling), and F (placarding) provided the communications provisions in the shipment approval form specified in paragraph 7(d) of this exemption are satisfied.

SEP 22 2004

d. SHIPMENT APPROVAL by STATE RADIATION OFFICIAL - Prior to shipment of the scrap metal, the state radiation control official of the state where the radiation was detected must evaluate the radiological risk associated with the transport of the material, under the conditions of this exemption, to a location where the radioactive material can be identified and properly treated. If the official believes that these risks are no greater than the risk associated with the transport of these materials within the regulations, he may authorize the shipment by completing and signing the shipment approval form shown in Annex A. Any additional or special conditions required as a condition of safe transport may be included in the approval.

e. SHIPMENT APPROVAL FORM DISTRIBUTION - Copies of the shipment approval form must be provided, in advance of the shipment, by the issuing official to the following:

- (1) the Office of the Executive Director, CRCPD, Frankfort, KY;
- (2) the cognizant person at the facility where the radioactive material was discovered;
- (3) the cognizant person at the facility from which the scrap metal was shipped prior to detection;
- (4) the cognizant person at the facility to which the scrap metal will be shipped for identification and/or treatment;
- (5) the state radiation official having authority over the facility receiving the shipment (after detection);
- (6) the state radiation official having authority over the facility from which the shipment originated (before detection).

f. SHIPMENT APPROVAL for CARRIERS - The cognizant person at the facility where the radioactive material was discovered must provide the operator of the highway vehicle with a copy of the shipment approval. For shipments by rail, he must provide the shipment approval to the railroad management or dispatch office.

SEP 22 2004.

g. IDENTIFICATION AND DISPOSITION OF RADIOACTIVE MATERIAL TRANSPORTED UNDER THIS EXEMPTION - Once the radionuclides in the scrap metal are identified and appropriate disposition is arranged, the identification and disposition portion of the shipment approval form must be completed and sent to the following:

- (1) the Office of the Executive Director, CRCPD;
- (2) the state official at the state of origin (prior to detection);
- (3) the state official issuing the shipment approval;
and
- (4) the state official of the state where
identification and disposition occurred

8. SPECIAL PROVISIONS:

a. Shipment Approval Assigned Number - One official in each state must assign and maintain a list of shipment approval numbers for all shipment approvals issued by that state under DOT-E 10656. The eight figures in the shipment approval number should be determined as follows: the first two characters are the abbreviation of the state of origin; the third and fourth characters must be the abbreviation of the state of destination; the fifth and sixth characters must be the last two digits of the year of issue; the seventh and eighth characters must be the sequential number of the shipment approved for that year between those states. For example AR-KY-99-04 would be the fourth shipment from Arkansas to Kentucky that was approved by the official during 1999.

b. Each state radioactive material official approving shipments must have a copy of this exemption and a copy of Title 49 of the Code of Federal Regulations. This official should also provide a copy of this exemption and their implementing instructions to all managers of scrap metal facilities that have installed radiation monitoring systems within their state.

9. MODES OF TRANSPORTATION AUTHORIZED: Rail freight and motor vehicle.

SEP 22 2004

10. MODAL REQUIREMENTS:

a. A current copy of the shipment approval document must be carried in the cab of the motor vehicle. For shipments by rail, the railroad management will provide to train crews the identity of the rail car and its position in the train.

b. Each carrier must ensure that the shipment described on the shipment approval document is transported over the most appropriate route without unnecessary or avoidable delay.

c. The shipment approval form and other provisions of this exemption satisfy: the Emergency Information and Training requirements of 49 CFR Part 172, Subpart G and Subpart H, and the modal Class 7 material requirements of Part 174, Subpart K and Part 177, Subpart B.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: In addition to the reporting requirements of § 171.15, § 171.16, and § 174.750 or § 177.854, a carrier must report, as soon as practicable, any incident involving a shipment in transportation under this exemption to the Associate Administrator for Hazardous

SEP 22 2004

Materials Safety by calling the National Response Center at 1-(800)424-8802. A call must also be made to the state official signing the shipment approval as identified in paragraph 7(d). These telephonic notices should identify that the shipment is under DOT-E 10656 and the eight-digit shipment approval identification number.

Issued in Washington, D.C.:



Robert A. McGuire
for Associate Administrator for
Hazardous Materials Safety

SEP 22 2004

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: RB/FF/sln

SEP 22 2004

Approval Number _____ (Refer to E 10656, para. 8a)

This shipment of scrap metal or related materials for recycle contains unidentified radioactive material causing low levels of radiation outside the transport vehicle. Shipment is under Exemption DOT-E 10656 without a determination of materials meeting or not meeting the regulatory definition of radioactive material. The shipment is a minor radiological concern based on considerations of the U.S. Department of Transportation and the state official signing this shipment approval document.

DETAILS of DETECTION SITE, MATERIALS, and ORIGIN

Facility: Name _____ Type: _____

Address: _____

① Contact person: _____ Ph. _____ Fax. _____

☐ Highway or ☐ Rail Vehicle Type: _____ Id.No.: _____

Owner: _____ Operator name: _____

② Contact person: _____ Ph. _____ Fax. _____

Description of scrap and release risks: _____

Radiation Measurement

Date/time performed: _____

mrem/h (max) _____ location on vehicle _____

Inst.Mfgr./type/model _____ Bkg. mrem/h _____

Surveyor name: _____ Ph. _____

Shipment Origin Company: _____ Location: _____

③ Contact person: _____ Ph. _____ Fax. _____

RADIATION CONTROL OFFICIALS (Detection, Origin, Destination States)

Detection State Official (receiving radiation detection info) Name: _____

④ Organization _____ Ph. _____ Fax. _____

Origin State Official (prior to detection)

Name: _____

⑤ Organization _____ Ph. _____ Fax. _____

Destination State Official (after detection)

Name: _____

⑥ Organization _____ Ph. _____ Fax. _____

DESTINATION for RADIOACTIVE MATERIAL IDENTIFICATION and DISPOSITION

If carrier and shipper to this location are different than ② and ③, show info in REMARKS

Company Name: _____ Location: _____

⑦ Contact person: _____ Ph. _____ Fax. _____

SEP 22 2004

E-10656 Approval Number _____

APPROVAL of SHIPMENT and SPECIAL CONDITIONS

Date: _____

Conditions: _____

⑧ Signature: _____ Ph. _____ Fax. _____

Title _____ Organization _____ Date _____

IDENTIFICATION of RADIOACTIVE MATERIAL and DISPOSITION INFORMATION at DESTINATION

⑨ Name: _____ Title: _____ Date: _____

Organization: _____ Ph. _____ Fax. _____

RECORD of TRANSMITTALS (Shipment Approvals and identification/disposition)
(Circumstances may influence distribution)

Shipment Approvals (Sent by ④ or ⑧) to (Show date sent)

OED CRCPD _____ ① _____, ② _____, ③ _____,
⑤ _____, ⑥ _____, ⑦ _____, OTHER _____

Record of Identification and Disposition (Sent by ⑥, ⑦, ⑨, or) to

③ _____, ④ _____, ⑤ _____, ⑨ _____, OED CRCPD _____

OTHER _____

REMARKS, OTHER INFORMATION

In case of an emergency, notify the National Response Center ((800)424-8802) and
the (⑧) authorizing official and give the Exemption No. and Approval No.